

# Purchase Order Receipt Listing

Wednesday, August 03, 2016 10:22:28 AM

All amounts are calculated in domestic currency.

All Vendors PO ID PO33154 Receipt Dates from 8/2/2016 to 8/2/2016 All Line Item Types  
All Item ID/GL/WOs All Rec. Employees All Currencies  
Grouped by Vendor ID

Purchase Order ID/ Curr Type	Line Nbr/ Insp Req	Project ID	Reference/ Description/ Cert Std	PO U/M / Stock U/M	Required Date Required Qty	Recv Date/ Date/ Emp	Recv Qty (PO U/M)	Cost Per Unit/ Recv Value	Inspected Qty/ Rejected Qty (PO U/M)	MRB Qty/ MRB Reject Qty	Book Amt
Vendor ID \ Vendor Name VU-TW/M1001 TW Metals											
PO33154	✓		M304TR0.750W.120 f		7/29/2016	8/2/2016	120.0000		0.0000	0	\$0.00
USD	No		304 ss round tube f		120.0000	PL0U01			0.0000	0	
			.750 x .120w								
			ml35373								
	2		M6061T6T0.3125W.0 f		7/29/2016	8/2/2016	48.0000		0.0000	0	\$0.00
	No		58								
			ALUM TUBE .3125 f		40.0000	PL0U01			0.0000	0	
			x .058w								
			ml35373								
	3		M6061T6T0.375W.05 f		7/29/2016	8/2/2016	84.0000		0.0000	0	\$0.00
	No		8								
			6061-T6 RD Tube f		80.0000	PL0U01			0.0000	0	
			.375 x.058W								
			ml35373								
	4		M304TR0.500W.035 f		7/29/2016	8/2/2016	60.0000		0.0000	0	\$0.00
	No		304 RD Tube .500 x f		60.0000	PL0U01			0.0000	0	
			.035W								
			ml35373								
	5		71401-45		7/29/2016	8/2/2016	1.0000		0.0000	0	\$0.00
	No		procurement quality		1.0000	PL0U01			0.0000	0	
			ml35373								
	6		M304TR0.750W.049 f		7/29/2016	8/2/2016	100.0000		0.0000	0	\$0.00
	No		304 RD Tube .750 x f		100.0000	PL0U01			0.0000	0	
			.049W								
			ml35373								
	7		M36TR0.00W.120 f		7/29/2016	8/2/2016	60.0000		0.0000	0	\$0.00
	No		316 RD tubing 1.00 x f		60.0000	PL0U01			0.0000	0	
			.120w								
			ml35373								

Purchase Order ID/ Curr Type	Line Nbr/ Insp Req	Project ID	Reference/ Description/ Cert Std	PO U/M / Stock U/M	Required Date Required Qty	Recv Date/ Recv Emp	Recv Qty (PO U/M)	Cost Per Unit/ Recv Value	Inspected Qty/ Rejected Qty (PO U/M)	MRB Qty/ MRB Reject Qty	Book Amt
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Total Received Quantity: 473.0000  
 Total Qty to Inspect (PO U/M): 0.0000  
 Total Reject Quantity: 0.0000  
 Total Receipt Value: \$0.00  
 Total Balance Due Quantity: 0.0000



ORDER NO.: 60610168 FROM: CRAN PAGE 1

PACKING SLIP



CUST NUMBER: 1203820 NET WGT: 219.977 REQ. DATE: 07/29/16 CONFIRMED  
SOLD TO: DART AEROSPACE LTD 1270 ABERDEEN ST HAWKESBURY ON CANADA  
SALESPERSON: DONNA SMALLEY CN K6A 1K7  
TERMS: NET 30 DAYS  
F.O.B.: SHIPPING POINT  
CUST ORD NO.: P033154

SHIP BY: VIA: FREIGHT: RELEASE NO.: RECEIVING PHONE: SHIP TO: DART AEROSPACE LTD 1270 ABERDEEN ST HAWKESBURY ON ONTARIO CANADA CN K6A 1K7  
COMMON CARRIER PREPAID  
07/26/16

LINE ITEM DESCRIPTION  
0001 36925 SMLS CD 304/L A269 3/4 X .120 WA  
CLIN# ORD QTY INVOICE QTY SHIPPED QTY WT  
120.000 FT 120.000 FT 120.000 FT 96.883  
PCS 6

\*\* 1 TEST REPORTS REQUIRED \*\*  
\*\* 1 CERTS REQUIRED \*\*  
ECCN: 2B99.9  
PO:49347978 HT:YX1511521  
MLT:CHINA  
MFG:CHINA  
PC: 6  
Export License: NLR  
Expiration Date: 0/00/00  
CUSTOMER QTY: 120.000 UOM FT

CLIN# ORD QTY INVOICE QTY SHIPPED QTY WT  
48.000 FT 48.000 FT 48.000 FT 2.621  
PCS 4

\*\* 1 TEST REPORTS REQUIRED \*\*  
\*\* 1 CERTS REQUIRED \*\*  
ECCN: FAR99  
PO:49324038 HT:32704387  
MLT:UNITED STATES  
MFG:UNITED STATES  
PC: 4  
Export License: NLR  
Expiration Date: 0/00/00  
CUSTOMER QTY: 48.000 UOM FT

CLIN# ORD QTY INVOICE QTY SHIPPED QTY WT  
80.000 FT 84.000 FT 84.000 FT 5.695  
PCS 7

\*\* 1 TEST REPORTS REQUIRED \*\*  
\*\* 1 CERTS REQUIRED \*\*  
ECCN: FAR99  
PO:49342889 HT:35420777  
MLT:UNITED STATES  
MFG:UNITED STATES  
PC: 7  
Export License: NLR  
Expiration Date: 0/00/00  
CUSTOMER QTY: 84.000 UOM FT

THANK YOU FOR THIS ORDER

TERMS AND CONDITIONS APPLICABLE TO THE SALE  
OF THESE PRODUCTS ARE SET FORTH ON THE  
REVERSE SIDE FOR YOUR CAREFUL REVIEW.

501683



ORDER NO.: 60610168 FROM: CRAN PAGE 2



PACKING SLIP

CUST NUMBER: 1203820 NET WGT: 219.977 REQ. DATE: 07/29/16 CONFIRMED  
SOLD TO: DART AEROSPACE LTD 1270 ABERDEEN ST HAWKESBURY ON CANADA  
SALES PERSON: DONNA SMALLEY SHIP BY: 07/26/16 COMMON CARRIER PREPAID  
TERMS: NET 30 DAYS VIA: FREIGHT: RELEASE NO.: RECEIVING PHONE:  
F.O.B.: SHIPPING POINT PO33154

LINE ITEM DESCRIPTION  
0004 36449 SMLS CD 304/L A269 1/2 OD X .035 WA  
LENGTH 20' ML

CLIN#	ORD QTY	INVOICE QTY	SHIPPED QTY	WT
PCS 3	60.000 FT	60.000 FT	60.000 FT	10.426

\*\* 1 TEST REPORTS REQUIRED \*\*  
\*\* 1 CERTS REQUIRED \*\*

ECCN: 2B99.g  
PO: 49342471 HT: YX1506582  
MFG: CHINA  
SLB/CL: 11-65  
CUSTOMER QTY: 60.000 UOM FT  
Expiration Date: 0/00/00

0005 36860 SMLS CD 304/L A269 3/4 OD X .049 WA 20' CL

CLIN#	ORD QTY	INVOICE QTY	SHIPPED QTY	WT
PCS 5	100.000 FT	100.000 FT	100.000 FT	36.672

\*\* 1 TEST REPORTS REQUIRED \*\*  
\*\* 1 CERTS REQUIRED \*\*

ECCN: 2B99.g  
PO: 49339072 HT: YX1501783  
MFG: CHINA  
SLB/CL: 9-110  
CUSTOMER QTY: 100.000 UOM FT  
Expiration Date: 0/00/00

0006 37123 SMLS CD 316/L A269 1 OD X .120 WA 20' CL

CLIN#	ORD QTY	INVOICE QTY	SHIPPED QTY	WT
PCS 3	60.000 FT	60.000 FT	60.000 FT	67.680

\*\* 1 TEST REPORTS REQUIRED \*\*  
\*\* 1 CERTS REQUIRED \*\*

ECCN: 2B99.g  
PO: 49347978 HT: YX1604510  
MFG: CHINA  
SLB/CL: 4-111  
CUSTOMER QTY: 60.000 UOM FT  
Expiration Date: 0/00/00

THANK YOU FOR THIS ORDER

TERMS AND CONDITIONS APPLICABLE TO THE SALE  
OF THESE PRODUCTS ARE SET FORTH ON THE  
REVERSE SIDE FOR YOUR CAREFUL REVIEW.

8016-8-3



PACKING SLIP

ORDER NO.: 60610168 FROM: CRAN PAGE 3

CUST NUMBER: 1203820 NET WGT: 219.977 REQ. DATE: 07/29/16 CONFIRMED

SOLD TO: DART AEROSPACE LTD 1270 ABERDEEN ST HAWKESBURY ON CANADA  
SHIP TO: DART AEROSPACE LTD 1270 ABERDEEN ST HAWKESBURY ON ONTARIO CANADA

SALESPERSON: DONNA SMALLEY SHIP BY: 07/26/16  
TERMS: NET 30 DAYS VIA: COMMON CARRIER  
F.O.B.: SHIPPING POINT FREIGHT: PREPAID  
CUST ORD NO.: P033154 RELEASE NO.: RECEIVING PHONE: LENGTH

LINE ITEM DESCRIPTION  
BROKERS KUEHNE AND NAGEL LTD  
Caller: LINDA 613-632-9577

AREA	TYPE OF PKG	PKGS	GRS WEIGHT	WIDTH	LENGTH	HGHT
B	REDDICRATE	1.000	245.000		20.5000	

UNLOAD TYPE: NONE SPECIFIED

BY: TB  
RT 000-

8-8-3

DATE SHIPPED

DATE FILLED

THANK YOU FOR THIS ORDER

TERMS AND CONDITIONS APPLICABLE TO THE SALE  
OF THESE PRODUCTS ARE SET FORTH ON THE  
REVERSE SIDE FOR YOUR CAREFUL REVIEW.



PACKING SLIP

ORDER NO.: 60610168 FROM: CRAN PAGE 4

CUST NUMBER: 1203820 NET WGT: 219.977 REQ. DATE: 07/29/16 CONFIRMED

SOLD TO: DART AEROSPACE LTD  
1270 ABERDEEN ST  
HAWKESBURY ON  
CANADA  
SHIP TO: DART AEROSPACE LTD  
1270 ABERDEEN ST  
HAWKESBURY ON  
ONTARIO CANADA  
CN K6A 1K7

SALESPERSON: DONNA SMALLEY  
NET 30 DAYS  
SHIPPING POINT  
PO33154  
COMMON CARRIER  
PREPAID  
SHIP BY: 27 ENGLEHARD DRIVE  
MONROE TWP  
NJ 08831

RECEIVING PHONE:  
RELEASE NO.:  
FREIGHT:  
VIA:  
CUST ORD NO.:  
F.O.B.:  
TERMS:  
SALESPERSON:

"TW Metals MSDS data is available on our web site at [www.twmetals.com](http://www.twmetals.com). MSDS & Data and the TW Metals MSDS's heading. If you do not have web site access you may telephone 610-458-1300 and we will mail or fax a copy of our current MSDS data to your location."

### "CERTIFICATE OF CONFORMANCE"

"TW Metals certifies that the material supplied on this purchase order and contained in the heat/lot number referenced above has been manufactured, inspected, and tested in accordance with the material specification. These records are on file at TW Metals. Packaging material for shipments to Europe and China consists of manufactured wood products and complies with the European emergency measures for confireous non-manufactured wood packing material"

Authorized Test Report Clerk

Date: 7/26/16

*Jessica Mannheim*

These commodities have been exported from the United States in accordance with the U.S. export control laws, export administrations regulations. Diversion contrary to U.S. law prohibited.

TERMS AND CONDITIONS APPLICABLE TO THE SALE  
OF THESE PRODUCTS ARE SET FORTH ON THE  
REVERSE SIDE FOR YOUR CAREFUL REVIEW.

THANK YOU FOR THIS ORDER

TWAL P34



Pufa™

Producer of Premium Stainless Steel Seamless Tubes

# MILL TEST REPORT

Purchaser: TW METALS-Cranbury		Certificate No.: 16-4-194	
Contract No.: TWM P.O.No.: M49347978		Date of Issue: 2016.5.11	
Commodity: Stainless Steel Seamless Tubes		Specifications: ASTM A213-15/ASME SA213-15/ASTM A269-15a EAW	
Process: Cold Drawn		Delivery Condition: OD Polished to 240 Grit	

Steel Grade	Heat Number	Lot Number	Dimensions		Quantity
TP304/TP304L	YX1511-52P	4-108	8/4" x 0.120" x 20'		50 Pieces
					1,000 Feet

Chemical Composition by Weight (%)									
Element	C	Mn	P	S	Si	Cr	Ni	Mo	Co
Requirements	≤0.035	≤2.00	≤0.045	≤0.030	≤1.00	18.00-20.00	8.00-12.00	-	-
Ladle Analysis	0.018	1.25	0.029	0.001	0.39	18.40	8.05	-	-
Product Analysis	0.020	1.22	0.032	0.002	0.38	18.38	8.43	-	-

Mechanical Properties									
Test Item	Elongation (% in 2")		Tensile Strength (PSI)		Yield Strength (PSI)		Flaring		
Requirements	≥35		≥75,000				Flaring Test	Flattening Test	Flange Test
Test Results	63/64		93,000/94,000				Passed	Passed	OK
Test Item	Reduction of Area Z (%)		Hardness	Cold Bend Test	Flaring Test	Flattening Test	Flange Test	P.M.T. Test	
Requirements			HRB≤80			30%	e=0.09	-	-
Test Results			75/77			Passed	Passed	-	OK
Test Item	Eddy Current Test		Air Underwater Pressure Test	Ultrasonic Test	Intergranular Corrosion Test	Macroscopic Inspection		Appearance	
Requirements								End Cut	OK
Test Results								OK	OK

ISO 9001:2008 Certified by Intertek 110703068 PED Certified by SZUTEST 2195-PED-1526002

## Additional Remarks:

(1) All tubes annealed to above 1900 Deg F and water quenched below 800 Deg F in 3 minutes

CANNOT CERTIFY COMPLIANCE  
FAR BAA / DFARS BAA / FAR TAA

(2) All tubes tested per ASTM A1016-14  
(3) Materials is NACE MR0103-2007 compliant (per Section 2.5)  
(4) Materials is NACE MR0175/ISO 15156-2003 compliant (per Section 4.2.1)

(5) In Compliance with EN 10204-3.1  
(6) In Compliance with RoHS Stipulation  
(7) No weld repair performed  
(8) Free from radioactive contamination  
(9) Free from mercury contamination  
(10) Billets melt and pipes/tubes manufactured in China  
(11) All tubes 100% PMI tested  
(12) All tubes 100% Eddy Current tested

By:



James Shi / Manager

Quality Control Department

Shanghai Pufa Stainless Steel Pipe Factory  
No. 59, Shuangye Road, Wanggang, New Pudong District, Shanghai, China

We hereby certify that this report is true and correct.



PRECISION TUBE CO.  
287 WISSAHICKON AVE.  
NORTH WALES PA 19454

Control No: 171189

**CERTIFIED TEST REPORT**

CUSTOMER PURCHASE ORDER NO.		CUST. ORD. NO.		PRECISION TUBE P/N	
49342889 LINE 001		326185		24A037500580006	
SOLD: TM METALS		SHIP: TM METALS			
TO		TO			
235 TUBEWAY		235 TUBEWAY			
CAROL STREAM, IL 60188		CAROL STREAM, IL 60188			
UNITED STATES		UNITED STATES			
DESCRIPTION		QTY. SHIPPED		DATE SHIPPED	

QUANTITY ORD.	DESCRIPTION	QTY. SHIPPED	DATE SHIPPED
3000 FT	METAL - 6061 ALUM TEMPER - T6 SPEC - AMS 4082P AMS-WW-T-700/6B ASTM-B-210-12 LENGTH - 12 FT LGTH TOL +.1250 IN -.0000 IN SHAPE - ROUND FINISH - STRAIGHT EXACT LENGTHS OD .3750 +.0030 -.0030 ID .0580 +.0040 -.0040 WALT	3120 FT	01/06/16

SAMPLE #	1	TENSILE STRENGTH (P.S.I.)	44,954	YIELD STRENGTH (P.S.I.)	40,057	ELONGATION IN 2 INCHES (%)	14	ROCKWELL HARDNESS		AVERAGE GRAIN SIZE (MM.)	
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FLATTENING: PASS	16/08/03	14	9-03	Comments: FAR BAA COMPLIES, DFARS BAA COMPLIES, FAR TAA COMPLIES	NON-DESTRUCTIVE TESTS	ACCEPTED BY
						1 JAN 13 18
						TW METALS

ALLOY: 6061 HEAT: TRACEABILITY #: 35420777 RAW MATL. VENDOR: P155690 - Kaiser Aluminum

Min	Max	OTHER ELEMENTS: 0.05 MAX EACH / 0.15 MAX TOTAL
0.40	0.80	0.70
0.15	0.40	0.15
Cu	Mn	0.15
Mg	Cr	0.35
Zn	Ti	0.25
Al	Rem.	0.15

We have carefully checked the material has been manufactured and tested in accordance with the requirements of the applicable specifications and descriptions set forth on Precision Tube's sales and marketing literature. During the manufacturing, testing, and inspection, the product did not come into direct contact with mercury or any of its compounds, nor with any mercury-containing device employing a single boundary contamination. Test results indicate that the material is compliant with the current revision of the RoHS Directive (2011/65/EU).

Manufactured in the USA  
QMS Registered to ISO 9001: 2008

By: Art Onitis  
QA Manager

01/13/16 Page: 1



# CERTIFIED TEST REPORT

<http://online.kaiseraluminum.com>

**KAISER**  
ALUMINUM  
FABRICATED PRODUCTS

*Best in Class*

KAISER ALUMINUM  
FABRICATED PRODUCTS, LLC  
2425 STEVENS DRIVE  
RICHLAND, WA 99352

CUSTOMER PO NUMBER:		CUSTOMER PART NUMBER:		PRODUCT DESCRIPTION:	
PT55680		SPIRIT-371850		5.400 LB/PC, 500 LB/0 LB 1.312 OD X .085 WALL ESRT	
KAISER ORDER NUMBER:	LINE ITEM:	SHIP DATE:	KAISER LOT NUMBER:	ALLOY:	TEMPER:
319478	001	11/13/2015	50751-310	6061	0
WEIGHT SHIPPED:	QUANTITY:	BL NUMBER:	DWG/DWG/THICKS:	WIDTH:	LENGTH:
5385.000 LB	983.000 PCS	004887			13.984 FT
SHIP TO:					
PRECISION TUBE CO 287 WISSAHICKON AVENUE N. WALES, PA 19454 USA					
MUELLER INDUSTRIES, INC PRECISION TUBE 8285 TOURNAMENT DRIVE STE. 150 MEMPHIS, TN 38125 USA					



## Actual Physical Properties

REFERENCE	DASH#	SAMPLE#	UTS (KSI)	YTS (KSI)	%ELONG IN 2	HARDNESS	CONDUCT.	SEMI
50751-310	0001	0001	18.0	6.5	27.6	N/A	N/A	N/A
50751-310	0001	0002	17.6	5.9	27.5	N/A	N/A	N/A
50751-310	0001	0003	17.9	6.2	27.6	N/A	N/A	N/A
50751-310	0001	0004	17.9	5.9	26.8	N/A	N/A	N/A
50751-310	0001	0005	18.5	6.1	28.4	N/A	N/A	N/A
50751-310	0001	0006	18.1	6.0	28.7	N/A	N/A	N/A

## Chemical Composition (wt%), Aluminum Remainder

LIMITS	SI	FE	CU	MN	MG	CR	ZN	TI	PB	BI	ZR	EA	TOT
Maximum	0.80	0.70	0.40	0.15	1.20	0.35	0.25	0.15	NA	NA	NA	0.05	.15
Minimum	0.40	0.00	0.15	0.00	0.80	0.04	0.00	0.00	NA	NA	NA	0.00	.0
F82353	.58	.32	.22	.05	1.02	.09	.05	.02	.00	.00	.00	.01	.02

## Applicable Requirements:

ASTM-B241-12 NON-STENCILED ASTM-B221-13 ASTM-B345-11 AMS-QQ-A-200/8 97(R07) TYPE I  
UNS#A96061 Also conforms to EN 10204 3.1

## Miscellaneous Notes

MANUFACTURED IN USA MELTED IN USA  
MERCURY IS NOT A NORMAL BACKGROUND ELEMENT IN ALUMINUM ALLOYS. NEITHER MERCURY NOR ANY OF ITS COMPOUNDS ARE UTILIZED BY KAISER ALUMINUM IN THE MANUFACTURE OF THIS MATERIAL.



**KAISER**  
**ALUMINUM**  
 FABRICATED PRODUCTS

*Best in Class*

CERTIFIED TEST REPORT  
<http://Online.KaiserAluminum.com>

KAISER ALUMINUM  
 FABRICATED PRODUCTS, LLC  
 2425 STEVENS DRIVE  
 RICHLAND, WA 99362

**CERTIFICATION**

Kaiser Aluminum Fabricated Products, LLC hereby certifies that metal shipped under this order has been inspected and tested and found in conformance with applicable specifications forming a part of the description set forth in Kaiser's sales acknowledgment form. Any warranty is limited to that shown on Kaiser's general terms and conditions of sale. Test reports are on file, subject to examination.

JOSEPH AMES, QUALITY MANAGER

*[Signature]*

TH METALS  
 JAN 13 16  
 ACCEPTED BY  
*[Signature]*



PRECISION TUBE CO.  
287 WISSAHICKON AVE.  
NORTH WALES PA 19454

A COMPANY OF KUELLER INDUSTRIES

### CERTIFIED TEST REPORT

CUSTOMER PURCHASE ORDER NO.	49324038 LINE 001
CUST. ORD. NO.	281022
PRECISION TUBE P/N	24A031250580005

SOLD TO: TW METALS 27 ENGLEHARD DRIVE MONROE TWP, NJ 08831 UNITED STATES	SHIP TO: TW METALS 27 ENGLEHARD DRIVE MONROE TWP, NJ 08831 UNITED STATES
--	--

QUANTITY ORD.	DESCRIPTION	QTY. SHIPPED	DATE SHIPPED
3000 FT	METAL - 6061 ALUM TEMPER - T6 SPEC - AMS 4082P (ASTM-B-210-12 AMS-WW-T-700/6B) LENGTH 12 FT LGTH TOL +.1250 IN -.0000 IN SHAPE - ROUND FINISH STRAIGHT EXACT LENGTHS OD .3125 +.0030 -.0030 WALL .0580 +.0040 -.0040	3300 FT	01/07/15

### MECHANICAL PROPERTIES

SAMPLE #	TENSILE (P.S.I.)	YIELD (P.S.I.)	ELONGATION IN 2 INCHES (%)	ROCKWELL HARDNESS	AVERAGE GRAIN SIZE (MM.)
1	46,473	41,218	15		

### DESTRUCTIVE TESTS

Comments: FAR BAA COMPLIES, DPAKS BAA COMPLIES, FAR TAA COMPLIES

### NON-DESTRUCTIVE TESTS

EDDY CURRENT: PASS

### CHEMICAL COMPOSITION

ALLOY: 6061 HEAT:

TRACEABILITY #: 32704387  
RAW MATL. VENDOR: PT45444 - Kaiser Aluminum

Min	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Al	Rem.
0.40	0.15	0.70	0.40	0.15	1.20	0.35	0.25	0.15		
Max	0.80	0.80	0.15	0.80	0.04					

OTHER ELEMENTS: 0.05 MAX EACH / 0.15 MAX TOTAL

We hereby certify that the material has been manufactured and tested in accordance with the requirements of the applicable specifications and descriptions set forth on Precision Tube's sales acknowledgment. During the manufacturing, testing and inspection, the product did not come into direct contact with mercury or any of its compounds, nor with any mercury containing device employing a single boundary containment. Test results indicate that the material is compliant with the current revision of the RoHS Directive (2002/95/EU).

Melted and Manufactured in USA  
QMS Registered to ISO 9001: 2008

By:

Art Onalitis  
QA Manager

01/07/15  
Page: 1 of 1

Control No: 168215\*\*

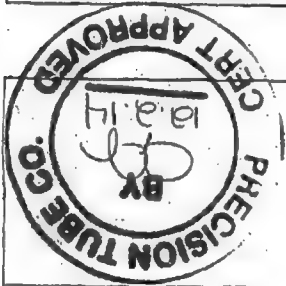
# KAISER ALUMINUM FABRICATED PRODUCTS

*Best in Class*

CERTIFIED TEST REPORT  
<http://online.kaiseraluminum.com>

KAISER ALUMINUM  
FABRICATED PRODUCTS, LLC  
2425 STEVENS DRIVE  
RICHLAND, WA 99352

CUSTOMER PO NUMBER: PT45444		CUSTOMER PART NUMBER: SPIRIT-371850		PRODUCT DESCRIPTION: 5.400 LB/PC .500 LB/-0 LB 1.312 OD X .085 WALL ESRT	
KAISER ORDER NUMBER: 317897	LINE ITEM: 001	SHIP DATE: 11/25/2014	KAISER LOT NUMBER: 50751-284	ALLOY: 6061	TEMPER: O
WEIGHT SHIPPED: 10618.000 LB	QUANTITY: 1933.000 PCS	B/L NUMBER: 004598	DIA/DAF/THKNS:	WIDTH:	LENGTH: 13.984 FT
SHIP TO: PRECISION TUBE CO 287 WISSAHICKON AVENUE N. WALES, PA 19454 USA					
SOLD TO: MUELLER INDUSTRIES, INC PRECISION TUBE 8285 TOURNAMENT DRIVE STE. 150 MEMPHIS, TN 38125 USA					



## Actual Physical Properties

REFERENCE	DASH#	SAMPLE#	UTS (KSI)	YTS (KSI)	%ELONG IN 2	HARDNESS	CONDUCT.	BEND
50751-284	0001	0001	19.5	8.7	19.8	N/A	N/A	N/A
50751-284	0001	0002	19.6	9.2	19.6	N/A	N/A	N/A
50751-284	0001	0003	19.3	8.7	20.3	N/A	N/A	N/A
50751-284	0001	0004	19.4	9.0	18.8	N/A	N/A	N/A
50751-284	0001	0005	19.7	9.1	19.3	N/A	N/A	N/A
50751-284	0001	0006	19.7	8.8	18.2	N/A	N/A	N/A
50751-284	0001	0007	19.5	9.3	19.9	N/A	N/A	N/A
50751-284	0001	0008	19.8	9.2	19.2	N/A	N/A	N/A
50751-284	0001	0009	19.2	8.6	19.9	N/A	N/A	N/A
50751-284	0001	0010	19.4	9.1	18.9	N/A	N/A	N/A
50751-284	0001	0011	19.7	8.7	21.4	N/A	N/A	N/A

## Chemical Composition (wt%), Aluminum Remainder

LIMITS	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Pb	Bi	Zr	Ea	Tot
Maximum	0.80	0.70	0.40	0.15	1.20	0.35	0.25	0.15	NA	NA	NA	0.05	.15
Minimum	0.40	0.00	0.15	0.00	0.80	0.04	0.00	0.00	NA	NA	NA	0.00	.0
F73891	.60	.30	.23	.05	.97	.06	.06	.02	.00	.00	.00	.02	.05
F73885	.60	.30	.23	.05	.97	.06	.05	.02	.00	.00	.00	.01	.02
F73887	.57	.30	.22	.05	.98	.07	.11	.02	.00	.00	.00	.01	.02

## Applicable Requirements:

ASTM-B241-12 NON-STENCILED ASTM-B221-13 ASTM-B345-11 AMS-QQ-A-200/8 97(R07) TYPE I  
UNS#A96061 Also conforms to EN 10204 3.1

## Miscellaneous Notes

MANUFACTURED IN USA MELTED IN USA  
MERCURY IS NOT A NORMAL BACKGROUND ELEMENT IN ALUMINUM ALLOYS. NEITHER MERCURY NOR ANY OF ITS COMPOUNDS ARE UTILIZED BY KAISER ALUMINUM IN THE MANUFACTURE OF THIS MATERIAL.

## MILL TEST REPORT

Producer of Premium Stainless Steel Seamless Tubes

Purchaser: TW METALS-Cranbury	Certificate No.: 16-1-11	Date of Issue: 2016.1.5
Contract No.: TWM P.O.No.: M49342471	Specifications: ASTM A213-15c/ASME SA213-15/ASTM A269-15a EAW	Process: Cold Drawn
Commodity: Stainless Steel Seamless Tubes	Delivery Condition: OD Polished to 240 Grit	
Steel Grade	Heat Number	Lot
TP304/TP304L	YX1506-582	11-65
Dimensions	Pieces	Quantity
1/2" x 0.035" x 20'	500	10,000

Chemical Composition by Weight (%)									
Element	C	Mn	P	S	Si	Cr	Ni	Mo	Co
Requirements	≤0.035	≤2.00	≤0.045	≤0.030	≤1.00	18.00-20.00	8.00-12.00	-	-
Ladle Analysis	0.023	0.65	0.029	0.003	0.30	18.23	8.05	-	-
Product Analysis	0.025	0.62	0.030	0.003	0.34	18.34	8.15	-	-

Mechanical Properties									
Test Item	Elongation (% in 2")	Tensile Strength (PSI)	Rm	Yield Strength (PSI)	Rp / 0.2%	Test Results	Requirements	Test Results	Test Item
Reduction of Area	≥35	≥75,000	≥30,000	≥39,000/40,000	≥30,000	61/62	89,000/90,000	39,000/40,000	Hardness
Hardness	HRB ≤80	75/77	-	22%	e=0.09	Passed	Passed	Passed	Flattening
Test Results	-	-	-	-	-	-	-	-	Flange
Test Item	Test Results	Test Results	Test Results	Test Results	Test Results	Test Results	Test Results	Test Results	P.M.T. Test
Test Item	Eddy Current Test	Air Underwater Pressure Test	Ultrasonic Test	Intergranular Corrosion Test	Macroscopic Inspection	Test Results	Test Results	Test Results	Test Results
Requirements	ASTM E 426	-	-	ASTM A262 E	End Cut	Appearance	OK	OK	OK

ISO 9001:2008 Certified by Intertek 110703068 PED Certified by SZUTEST 2195-PED-1526002

## Additional Remarks:

(1) All tubes annealed to above 1900 Deg F and water quenched below 800 Deg F in 3 minutes

(2) All tubes tested per ASTM A1016-14

(3) Materials is NACE MR0103-2007 compliant (per Section 2.5)

(4) Materials is NACE MR0175/ISO 15156-2003 compliant (per Section 4.2.1)

CANNOT CERTIFY COMPLIANCE FAR BAA / DFARS BAA / FAR TAA

- (5) In Compliance with EN 10204-3.1
- (6) In Compliance with RoHS Stipulation
- (7) No weld repair performed
- (8) Free from mercury contamination
- (9) Free from radioactive contamination
- (10) Billets melt and pipes/tubes manufactured in China
- (11) All tubes 100% PMI tested
- (12) All tubes 100% Eddy Current tested

By:



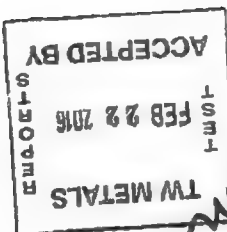
James Shi / Manager

Quality Control Department

## Shanghai Pufa Stainless Steel Pipe Factory

No. 59, Shuangye Road, Wanggang, New Pudong District, Shanghai, China

We hereby certify that this report is true and correct.



# MILL TEST REPORT

Purchaser: TW METALS-Cranbury		Contract No.: TWMP.O.No.: M493339072		Date of Issue: 2015.11.5	
Commodity: Stainless Steel Seamless Tubes		Specifications: ASTM A213-13/ASTM A269-14el EAW		Delivery Condition: OD Polished to 240 Grit	
Steel Grade	Heat Number	Lot Number	Dimensions	Quantity	
				Pieces	Feet
TP304/TP304L	YX1501-783	9-110	3/4" x 0.049" x 20'	250	5,000

Chemical Composition by Weight (%)					
Element	C	Mn	P	S	Si
Requirements	≤0.035	≤2.00	≤0.045	≤0.030	≤1.00
Ladle Analysis	0.012	0.68	0.031	0.001	0.37
Product Analysis	0.019	0.70	0.033	0.002	0.39
Mechanical Properties					
Test Item	Elongation (% in 2")	Tensile Strength (PSI)	Yield Strength (PSI)	Flattening	Flange
Requirements	≥35	≥75,000	88,000/89,000	33,000/34,000	33,000/34,000
Test Results	63/64				

Test Item	Reduction of Area	Hardness	Cold Bend	Flattening	Flange
Requirements	Z (%)	HRB≤80	Test	22%	e=0.09
Test Results	-	75/77	-	Passed	Passed
Test Item	Eddy Current Test	Air Underwater Pressure Test	Ultrasonic Test	Corrosion Test	Macroscopic Inspection
Requirements	ASTM E 426	-	-	ASTM A262 E	End Cut
Test Results	Passed	-	-	OK	OK

ISO 9001:2008 Certified by Intertek 110703068 PED Certified by SZUTEST 2195-PED-1526002

## Additional Remarks:

- (1) All tubes annealed to above 1900 Deg F and water quenched below 800 Deg F in 3 minutes
- (2) All tubes tested per ASTM A1016-14
- (3) Materials is NACE MR0103-2007 compliant (per Section 2.5)
- (4) Materials is NACE MR0175/ISO 15156-2003 compliant (per Section 4.2.1)
- (5) In Compliance with EN 10204-3.1
- (6) In Compliance with RoHS Stipulation
- (7) No weld repair performed
- (8) Free from mercury contamination
- (9) Free from radioactive contamination
- (10) Billets melt and pipes/tubes manufactured in China
- (11) All tubes 100% PMI tested
- (12) All tubes 100% Eddy Current tested

CANNOT CERTIFY COMPLIANCE  
FAR BAA / DFARS BAA / FAR TAA



By:

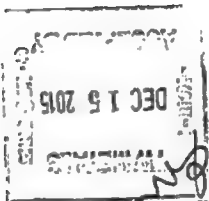
James Shi / Manager

Quality Control Department

Shanghai Pupa Stainless Steel Pipe Factory

No. 59, Shuangye Road, Wanggang, New Pudong District, Shanghai, China

We hereby certify that this report is true and correct.





## MILT TEST REPORT

Purchaser: TW METALS-Cranbury		Certificate No.: 164-198		Date of Issue: 2016.5.11		Contract No.: TWM P.O.No.: M49347978	
Commodity: Stainless Steel Seamless Tubes		Specifications: ASTM A213-15c/ASME SA213-15/ASTM A269-15a EAW		Process: Cold Drawn			
Steel Grade		Heat Number	Lot Number	Dimensions	Places	Quantity	
TP316/TP316L	YX1604-510	4-111	1" x 0.120" x 20'	125	2,500		
				Delivery Condition: OD Polished to 240 Grit			

Element	C	Mn	P	S	Si	Cr	Ni	Mo	Co
Requirements	≤0.035	≤2.00	≤0.045	≤0.030	≤1.00	16.00-18.00	10.00-14.00	2.0-3.0	-
Ladle Analysis	0.016	0.65	0.026	0.001	0.35	16.70	10.06	2.02	-
Product Analysis	0.020	0.64	0.033	0.002	0.34	16.85	10.24	2.03	-

Test Item	Requirements	Test Results
Elongation (% in 2")	≥35	65/66
Tensile Strength (PSI)	≥75,000	80,000/81,000
Yield Strength (PSI)	≥30,000 Rp/0.2%	37,000/38,000

Test Item	Reduction of Area Z (%)	Hardness	Cold Bend Test	Flaring Test	Flattening Test	Flange Test	P.M.I. Test
Requirements	-	HRB≤80	-	25%	e=0.09	-	-
Test Results	-	72/74	-	Passed	Passed	-	OK
Test Item	Eddy Current Test	Air Underwater Pressure Test	Ultrasonic Test	Intergranular Corrosion Test	Macroscopic Inspection		
Requirements	ASTM E 426	-	-	ASTM A262 E	End Cut	Appearance	
Test Results	Passed	-	-	OK	OK	OK	

## Additional Remarks:

- (1) All tubes annealed to above 1900 Deg F and water quenched below 800 Deg F in 3 minutes  
(2) All tubes tested per ASTM A1016-14

(3) Materials is NACE MR0103-2007 compliant (per Section 2.5)

(4) Materials is NACE MR0175/ISO 15156-2003 compliant (per Section 4.2.1)

(5) in Compliance with EN 10204-3.1

(6) in Compliance with RoHS Stipulation

(7) No weld repair performed

(8) Free from mercury contamination

(9) Free from radioactive contamination

(10) Billets melt and pipes/tubes manufactured in China

(11) All tubes 100% PM tested

(12) All tubes 100% Eddy Current tested

By:

James C.

James Shi / Manager

Quality Control Department

We hereby certify that this report is true and correct.

Shanghai Pufa Stainless Steel Pipe Factory  
No. 59, Shuangye Road, Wanggang, New Pudong District, Shanghai, China

TW METALS  
 JUN - 9 2016  
 THOMPSON  
 ACCEPTED BY



MATERIAL: H351805004X 035	DATE: 16 DEC 15
PO / BATCH NO.: B033554/M135313	
MATERIAL CERT REC'D: 405	QUANTITY RECEIVED: 60'
QUANTITY INSPECTED: 60'	QUANTITY REJECTED: 0
THICKNESS ORDERED: .035	THICKNESS RECEIVED: .035
THICKNESS ORDERED: .035	THICKNESS RECEIVED: .035
SHEET SIZE ORDERED: N/A	SHEET SIZE RECEIVED: N/A
SHEET SIZE ORDERED: N/A	SHEET SIZE RECEIVED: N/A

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	(Y)	N
CORRECT FINISH	(Y)	N
CORROSION	(Y)	N
CORRECT GRAIN DIRECTION	(Y)	N
CORRECT MATERIAL	(Y)	N
CORRECT THICKNESS	(Y)	N
PHOTO REQUIRED	(Y)	N
CORRECT MATERIAL	(X)	N
CORRECT REF # TO LINK CERT	(X)	N
CORRECT MATERIAL IDENTIFICATION	(X)	N
CORRECT M# ON THE MATERIAL	(X)	N
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	(Y)	N
DOES THIS REQUIRE AN EXTRUSION REPORT	(Y)	N

CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK.				
RECORD RESULTS BELOW				
	TYPE OF MATERIAL			
	SIZE OF TEST SAMPLE			
	HARDNESS / DUROMETER READING			
HRC	HRB	DUR A	DUR D	

testers located in the Quality Office

QC 18 INSPECTION	INSPECTED BY: <u>9</u>	DATE: <u>16-05-15</u>
ENGINEERING SIGNOFF (if required)	SIGNED OFF BY: _____	DATE: _____

**Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in**

# MATERIAL RECEIPT INSPECTION FORM

PO: BATCH NO 33154/135373

THICKNESS ORDERED 1.00X.120W  
THICKNESS RECEIVED 1.00X.115W

SHEET SIZE ORDERED  
SHEET SIZE RECEIVED

MATERIAL M316TS/00W.120  
DATE 16/08/03  
MATERIAL CERT REC'D  
QUANTITY RECEIVED  
QUANTITY INSPECTION  
QUANTITY REJECTED

DESCRIPTION	NCR	Check	Y/N
SURFACE DAMAGE	Y	(X)	(N)
CORRECT FINISH	Y	(X)	(N)
CORROSION	X	(X)	(N)
CORRECT GRAIN DIRECTION	Y	(X)	(N)
CORRECT MATERIAL	Y	(X)	(N)
CORRECT THICKNESS	Y	(X)	(N)
PHOTO REQUIRED	Y	(X)	(N)
CORRECT MATERIAL	Y	(X)	(N)
CORRECT FILE # TO LINK CERT	Y	(X)	(N)
CORRECT MATERIAL IDENTIFICATION	Y	(X)	(N)
CORRECT MFG ON THE MATERIAL	Y	(X)	(N)
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF?	Y	(X)	(N)
DOES THIS REQUIRE AN EXTRUSION REPORT?	Y	(X)	(N)

ASTM A213-15  
VX1664-870

CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK	RECORD RESULTS BELOW	HRC	HRB	DUR A	DUR B

TYPE OF MATERIAL  
SIZE OF TEST SAMPLE  
HARDNESS / DUREMETER READING

Tests located in the Quality Office

## QC 18 INSPECTION ENGINEERING SIGNOFF (if required)

INSPECTED BY  
DATE 16/08/03  
SIGNED OFF BY  
DATE

Attach this inspection sheet with the corresponding material cert and cert to be scanned and received in

FORMS Quality Assurance Approved OAMTRIF Material Receipt Inspection Form (rev)

# MATERIAL RECEIPT INSPECTION FORM

PO: BATCH NO 33154/135373

MATERIAL H304TR 30W120  
 DATE 16/08/03  
 MATERIAL CERT REC'D 400  
 QUANTITY REC'D 120'  
 QUANTITY INSP REC'D 120'  
 QUANTITY RE-CLTD

THICKNESS ORDERED 748X.120W  
 THICKNESS REC'D 748X.120W  
 SHEET SIZE ORDERED  
 SHEET SIZE REC'D

DESCRIPTION	NCR	Check	Y	N
SURFACE DAMAGE	<input checked="" type="checkbox"/>			
CORRECT FINISH	<input checked="" type="checkbox"/>			
CORROSION	<input checked="" type="checkbox"/>			
CORRECT GRIND DIRECTION	<input checked="" type="checkbox"/>			
CORRECT MATERIAL	<input checked="" type="checkbox"/>			
CORRECT THICKNESS	<input checked="" type="checkbox"/>			
PHOTO REQUIRED	<input checked="" type="checkbox"/>			
CORRECT MATERIAL	<input checked="" type="checkbox"/>			
CORRECT REF # TO LINK CERT	<input checked="" type="checkbox"/>			
CORRECT MATERIAL IDENTIFICATION	<input checked="" type="checkbox"/>			
CORRECT # ON THE MATERIAL	<input checked="" type="checkbox"/>			
DOES THIS MATERIAL REQUIRE AN ENGINEERING SIGN OFF	<input checked="" type="checkbox"/>			
DOES THIS REQUIRE AN EXTRUSION REPORT	<input checked="" type="checkbox"/>			

ASTM A213  
 4X1511-501

CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK	RECORD RESULTS BELOW	TESTS LOCATED IN THE QUALITY OFFICE
	HRC	
	HRB	
	DUR A	
	DUR D	

## QC 18 INSPECTION

SIGNED OFF BY \_\_\_\_\_  
 DATE \_\_\_\_\_  
 16/08/03

Attach this inspection sheet with the corresponding material cert and return to be scanned and received in

# MATERIAL RECEIPT INSPECTION FORM

PO - BATCH NO 33134/135373  
 THICKNESS ORDERED 375 X .058W  
 THICKNESS RECEIVED 375 X .058W  
 SHEET SIZE ORDERED  
 SHEET SIZE RECEIVED

MATERIAL MCL 16 I 375 W .058  
 DATE 16/08/03  
 MATERIAL CORRECTED  
 QUANTITY RECEIVED 84  
 QUANTITY INSPECTED 84  
 QUANTITY REMOVED

DESCRIPTION	NCR	Check	Y/N
SURFACE DAMAGE	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	N
CORRECT FINISH	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	N
CORROSION	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	N
CORRECT GRAIN DIRECTION	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	N
CORRECT MATERIAL	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	N
CORRECT THICKNESS	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	N
PHOTO REQUIRED	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	N
CORRECT MATERIAL	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	N
CORRECT REF # TO LINK CLIM	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	N
CORRECT MATERIAL IDENTIFICATION	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	N
CORRECT M# ON THE MATERIAL	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	N
NOT THIS MATERIAL PL QUITE	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	N
ENGINEERING SIGN OFF	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	N
DOES THIS REQUIRE AN EXTRUSION REPORT	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	N

ASTM B 210/D12  
 35420777

CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK  
 RECORD RESULTS BELOW

HRC	HRB	DUR A

TYPE OF MATERIAL  
 SIZE OF TEST SAMPLE  
 HARDNESS / DUROMETER READING

Testers located in the Quality Office

**QC 18 INSPECTION**

ENGINEERING SIGNOFF (if required)

SIGNED OFF BY  
 DATE 16/08/03

INSPECTED BY  
 DATE 16/08/03

Attach this inspection sheet with the corresponding material sign and report to be scanned and received in

# MATERIAL RECEIPT INSPECTION FORM

PO / BATCH NO 33154/135373

MATERIAL H60.16 T.3125 W.058  
DATE 16/08/03

MATERIAL CERT REC'D  
QUANTITY RECEIVED 481  
QUANTITY INSPE CTED 481  
QUANTITY REB CTED 481

THICKNESS ORDERED 3125 W.058  
THICKNESS RECEIVED 3125 W.054  
SHEET SIZE ORDERED  
SHEET SIZE RECEIVED

DESCRIPTION  
NCR (Check Y/N)

☒ SURFACE DAMAGE

☒ CORRECT FINISH

☒ CORROSION

☒ CORRECT CHAIN DIRECTION

☒ CORRECT MATERIAL

☒ CORRECT THICKNESS

☒ PHOTO REQUIRED

☒ CORRECT MATERIAL

☒ CORRECT REF # TO LINK CERT

☒ CORRECT MATERIAL IDENTIFICATION

☒ CORRECT MFR ON THE MATERIAL

☒ DOES THIS MATERIAL REQUIRE AN

☒ ENGINEERING SIGN OFF

☒ DOES THIS REQUIRE AN

☒ EXTRUSION REPORT

CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK  
RECORD RESULTS BELOW

TYPE OF MATERIAL	SIZE OF TEST SAMPLE	HARDNESS : DUROMETER READING
HRC		
HRB		
DUR A		

Tests located in the Quality Office

QC 18 INSPECTION

INSPECTED BY

DATE 16/08/03

DATE

SIGNED OFF BY

ENGINEERING SIGNOFF (if required)

Attach this inspection sheet with the corresponding material cert and report to be scanned and received in

FORMS Quality Assurance Approved OAMRIF Material Receipt Inspection Form revb



H:\FORMS\Quality Assurance\approved QAMRIF Material Receipt Inspection Form revB

PO / BATCH NO.: PO3354/M3533

THICKNESS ORDERED: 0.049  
THICKNESS RECEIVED: 0.050  
SHEET SIZE ORDERED:  
SHEET SIZE RECEIVED: 11/14

CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK.				
RECORD RESULTS BELOW				
	TYPE OF MATERIAL	HRC	HRB	DUR A
	SIZE OF TEST SAMPLE			
	HARDNESS / DUROMETER READING			

testers located in the Quality Office

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in



Dart Aerospace Ltd.  
1270 Aberdeen Street  
Hawkesbury, ON K6A 1K7  
Tel: 613 632 9577  
Fax: 613 632 1053

# PURCHASE ORDER

Purchase Order ID PO33154

Purchase Order Date 7/25/2016 9:23:46 AM  
PO Print Date 7/25/2016

Page Number 1 of 4

Order From :

TW METALS  
PO BOX 933014  
ALANTA, GA 31193-3014  
US

Ship To : DART AEROSPACE LTD

1270 ABERDEEN  
HAWKESBURY, ON K6A 1K7  
CANADA

Contact Name

Vendor Phone 585 768 5600

Ship To Contact

Ship To Phone

Ship Via:

YRC COLLECT

Ship Acct:

Buyer

Customer POID

Customer Tax #

10127-2607

Terms

Net 30

Currency

USD

FCA - (Free Carrier)

Line	Reference	Vendor Part Number	Description/	Mfg ID	Reg Date/	CD	Reg Qty/	Unit of	Measure	PO Unit Price	Extended
Nbr											Price

1 M304TR0.750W.120

304 ss round tube .750 x

.120w

7/29/2016

Yes

7/29/2016

MATERIAL: AISI 304/316 SA SEAMLESS ROUND TUBING  
AS PER ASTM A213 OR AMSE SA213 OR ASTM A269

F

120.00

\$3.95

\$474.00

Line Total:

\$474.00

2 M6061TT6T0.3125W.058

ALUM TUBE .3125 x

.058w

7/29/2016

Yes

7/29/2016

MATERIAL: 6061-T6/T62/T6510/T6511 SEAMLESS TUBING  
AS PER WW-T-700/6 OR QQ-A-200/8 OR QQ-A-225/8 OR  
AMS 4080 OR AMS 4082 OR AMS 4083 OR ASTM B210 OR  
ASTM B241

40.00

\$2.50

\$100.00

Line Total:

\$100.00

Spoke 8-3

Notes x

Note:

7/25/2016



Dart Aerospace Ltd.  
1270 Aberdeen Street  
Hawkesbury, ON K6A 1K7  
Tel: 613 632 9577  
Fax: 613 632 1053

**PURCHASE ORDER**  
Purchase Order ID **PO33154**  
Purchase Order Date 7/25/2016 9:23:46 AM  
PO Print Date 7/25/2016

Order From :

VU-TWMM001

Ship To : DART AEROSPACE LTD

1270 ABERDEEN  
HAWKESBURY, ON K6A 1K7  
CANADA

TW METALS  
PO BOX 933014  
ALNTA, GA 31193-3014  
US

Contact Name

585 768 5600

Vendor Phone

Ship To Contact

Ship To Phone

Ship Via:

YRC COLLECT

Ship Acct:

Buyer

Customer POID

Customer Tax #

Terms

Currency

USD

Net 30

10127-2607

FCA - (Free Carrier)

7/29/2016

Yes

7/29/2016

MATERIAL: 6061-T6/T62/T6510/T6511 SEAMLESS TUBING  
AS PER WW-T-700/6 OR QQ-A-200/8 OR QQ-A-225/8 OR  
AMS 4080 OR AMS 4082 OR AMS 4083 OR ASTM B210 OR  
ASTM B241

M6061T6T0.375W.058

6061-T6 RD Tube .375  
x.058W

80.00

\$2.15

\$172.00

Line Total:

\$172.00

7/29/2016

Yes

7/29/2016

MATERIAL: AISI 304/316 SA SEAMLESS ROUND TUBING  
AS PER ASTM A213 OR AMSE SA213 OR ASTM A269

M304TR0.500W.035

304 RD Tube .500 x .035W

60.00

\$1.50

\$90.00

Line Total:

\$90.00

DAS  
9  
9-89

Sp/16-8-3

Note:

7/25/2016



Dart Aerospace Ltd.  
1270 Aberdeen Street  
Hawkesbury, ON K6A 1K7  
Tel: 613 632 9577  
Fax: 613 632 1053

# PURCHASE ORDER

Purchase Order ID **PO33154**  
Purchase Order Date 7/25/2016 9:23:46 AM  
PO Print Date 7/25/2016

Page Number 3 of 4

Order From :

VU-TWM001

Ship To : DART AEROSPACE LTD

TW METALS  
PO BOX 933014  
ALANTA, GA 31193-3014  
US

Contact Name  
Vendor Phone

585 768 5600

Ship To Contact  
Ship To Phone  
Ship Via:

YRC COLLECT

Ship Acct:

Buyer  
Customer POID  
Customer Tax #  
Terms  
Currency  
FOB

10127-2607  
Net 30  
USD  
FCA - (Free Carrier)

5

71401-45

procurement quality clauses

7/29/2016  
No

Procurement Quality Clauses  
A005 right of entry  
A012 chemical and physical test report  
A016 personnel qualification  
A017 raw material identification (as applicable)  
A026 certification of material conformance  
A041 quality management system  
A042 dart notification by supplier  
A043 retention of quality documents

8016-8-3

1.00

\$0.00

\$0.00

Line Total:

\$0.00

6 M304TR0.750W.049

304 RD Tube .750 x .049W

7/29/2016  
Yes

100.00

\$2.10

\$210.00

Line Total:

\$210.00

8016-8-3

9-89  
9  
DAS

MATERIAL: AISI 304/316 SA SEAMLESS ROUND TUBING  
AS PER ASTM A213 OR AMSE SA213 OR ASTM A269

Note:

7/25/2016



Dart Aerospace Ltd.  
1270 Aberdeen Street  
Hawkesbury, ON K6A 1K7  
Tel: 613 632 9577  
Fax: 613 632 1053

# PURCHASE ORDER

Purchase Order ID PO33154  
Purchase Order Date 7/25/2016 9:23:46 AM  
PO Print Date 7/25/2016

Page Number 4 of 4

Order From :

VU-TWM001

Ship To : DART AEROSPACE LTD

TW METALS  
PO BOX 933014  
ALTANTA, GA 31193-3014  
US  
1270 ABERDEEN  
HAWKESBURY, ON K6A 1K7  
CANADA

Contact Name	Vendor Phone	Customer POID	Buyer
Ship To Contact	585 768 5600	Customer Tax #	
Ship To Phone		Terms	
Ship Via:		Currency	
Ship Acct:	YRC COLLECT	USD	
		FCA - (Free Carrier)	

7	M316TR1.00W.120	316 RD tubing 1.00 x .120w	7/29/2016	Yes	7/29/2016
					60.00
					\$5.00
					\$300.00

MATERIAL: AISI 304/316 SA SEAMLESS ROUND TUBING  
AS PER ASTM A213 OR AMSE SA213 OR ASTM A269

8016-B-3

Line Total: \$300.00  
PO Total: \$1,346.00

M

Change Nbr: 2  
Change Date: 7/25/2016  
Note: Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit [www.dartaerospace.com](http://www.dartaerospace.com) for further explanation.